

*U.S. Department of Labor*  
*Mine Safety and Health Administration*

## **FY 2000 Annual Performance Plan**

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**Revised: February 4, 2000**

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**U.S. Department of Labor**  
**Mine Safety and Health Administration**  
**Fiscal Year 2000 Performance Plan**

## **1. Introduction**

The Mine Safety and Health Administration's (MSHA) mission is to protect the safety and health of the Nation's miners under the mandate of the Federal Mine Safety and Health Act (Mine Act). This mission is in concert with the Department of Labor's Strategic Goal of *Quality Workplaces: Foster quality workplaces that are safe, healthy, and fair* and the Outcome Goal of *Reduce workplace injuries, illnesses, and fatalities*. The two MSHA strategic goals are to: ***Reduce injuries in the Nation's mines*** and ***Reduce miners' overexposure to health hazards***.

The Mine Act requires MSHA to conduct annually at least four complete inspections of every underground mine and two complete inspections of every surface operation. Additional inspections of mines experiencing significant methane gas liberation, or a high incidence rate of serious accidents, injuries, or overexposures to airborne contaminants and harmful physical agents are also conducted. Other enforcement activities include mandated investigations that are prompted by accidents, by safety or discrimination complaints, and by the identification of mine operators who demonstrate reckless disregard for safety or health standards or refuse to comply with orders issued under the Mine Act. Activities designed to assist industry and labor in improving safety and health conditions and practices in the mines are also an integral part of the Agency's enforcement programs. MSHA assesses civil penalties for

violations of safety and health standards, approves and certifies mining equipment, materials, and explosives for use in mines, and provides education and training and technical assistance to support its mission.

Mining is among the most hazardous of occupations. Changing workplace factors in the mining industry require constant vigilance on the part of the mine operators and miners to mitigate the conditions that cause accidents, injuries, and illnesses. The Transportation Equity Act for the 21st Century (TEA 21) provided for massive investments in highway, bridge, and mass transit construction. This along with resultant office and housing development will put increasing demands on the production of sand, gravel, stone, and other construction-related minerals. Expanded production will likely lead to an increase in inexperienced personnel in the industry. Dust, noise, and diesel particulate matter are recognized as pervasive health hazards to miners resulting in debilitating and fatal lung diseases and acute hearing loss. While coal workers' pneumoconiosis (black lung) and silicosis are preventable diseases, miners are still succumbing to these illnesses.

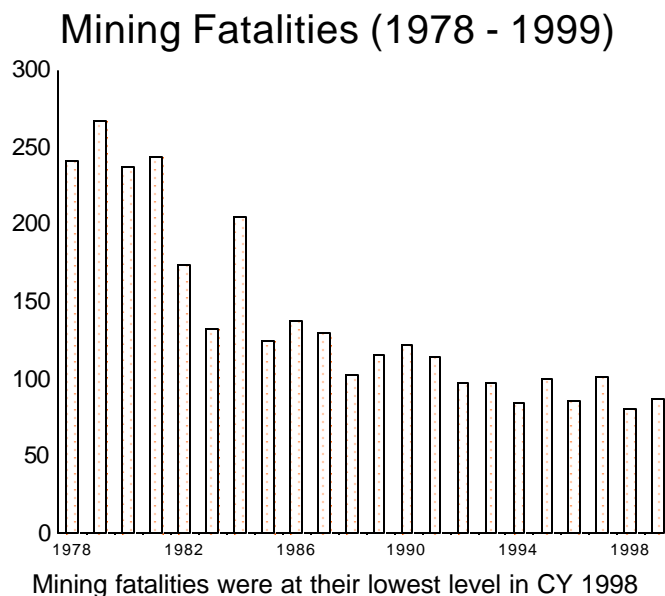
The Mine Act requires all miners to receive training prior to working in a mine and annually while employed as a miner. In 1980, Congress added language to MSHA's appropriations bill prohibiting MSHA from expending funds to carry out the provisions of Section 115 of the Mine Act

with respect to shell dredging, sand, gravel, surface stone, surface clay, colloidal phosphate or surface limestone mines. Since this amendment was added, MSHA has been restrained from enforcing training requirements or providing training assistance to more than 10,000 aggregate operations, resulting in a significant void in safety and health awareness training for a large portion of the mining community. However, the FY 1999 appropriations bill amended the rider language to permit MSHA to develop training regulations (standards) for these mines. Congress directed MSHA to promulgate these regulations before the end of FY 1999. MSHA published the regulation in the *Federal Register* on September 30, 1999, to become effective on October 2, 2000.

Coal continues to be the predominant fuel for electricity generation in the U.S. There has been a slow increase in coal production due to greater productivity from fewer mines and miners. The Clean Air Act, deregulation of the utility industry, and globalization of the mining industry are

influencing the structure and operation of the industry. Competitive pressures are evident as underground mines give way to surface mines, and large western surface mining operations expand while smaller eastern operations struggle to survive. The nature and extent of these changes will have an impact on the coal mining workplace and workforce, and may also impact miner safety and health.

MSHA's FY 2000 program activities and initiatives focus on reducing miners' injuries and overexposures to health hazards by applying the Agency's human, financial, and information technology resources in the most effective manner. Completion of mandatory inspections and investigations will continue as a critical part of ascertaining compliance with Federal safety and health standards. Special emphasis and educational outreach initiatives will be strengthened focusing attention on the root causes of persistent safety and health problems. MSHA will strive to find new ways to improve working conditions in the Nation's mines.



## **2. Overview of the MSHA Strategic Plan**

The MSHA FY 1999-2004 Strategic Plan focuses attention on the key element in the Agency mandate—protecting the safety and health of miners. The strategic plan sets two Agency results goals: reduce injuries in the Nation's mines and reduce miners' overexposures to health hazards.

### **2.1 Mission**

MSHA's mission is to protect the safety and health of the Nation's miners. The Mine Act requires MSHA to establish and determine compliance with Federal safety and health standards through inspections and investigations, and to work cooperatively with the mining industry, labor, and the States to improve training programs aimed at preventing accidents and occupationally-caused illnesses.

### **2.2 Vision**

MSHA's vision is to be a leading agent for change, in cooperation with the mining community, to eliminate preventable injuries, deaths, and illnesses in the Nation's mines and to enhance its position as the world's authority on mine safety and health.

## **2.3 MSHA Strategic Goals**

The MSHA strategic goals focus on the results to be achieved in support of MSHA's mission. Each goal has performance objectives that set the course for MSHA's annual plan:

- C Reduce injuries in the Nation's mines.
  - < Reduce the number of coal mine and metal and nonmetal mine fatalities to below the average number recorded for the previous 5 years.
  - < Reduce mine industry injuries (nonfatal-days-lost incidence rate) to below the average number recorded for the previous 5 years for all mines.
- C Reduce miners' overexposure to health hazards.
  - < Reduce the percentage of samples out of compliance with the respirable coal mine dust standard.
  - < Reduce the percentage of samples in metal and nonmetal mines out of compliance with the silica standard for the highest risk occupations.
  - < Reduce the percentage of samples in metal and nonmetal mines out of compliance with the noise standard in the highest risk occupations.

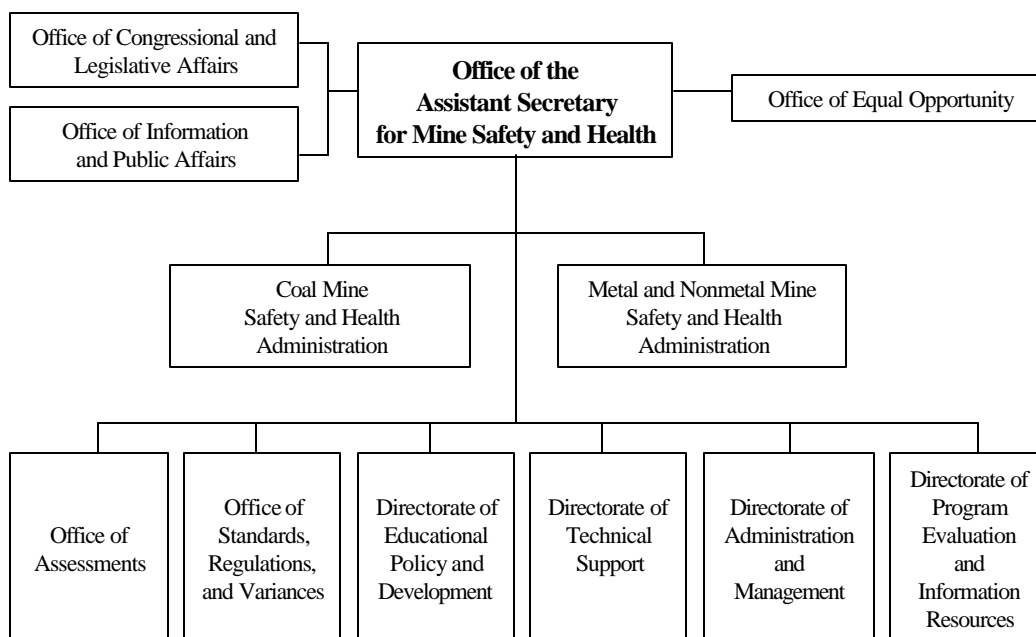
## 2.4 MSHA Organization

MSHA is headed by an Assistant Secretary of Labor for Mine Safety and Health. The Agency carries out its mission through its enforcement, compliance, and support organizations in a synergistic effort. The agency has its headquarters in Arlington, Virginia, and includes 11 Coal Mine Safety and Health districts and associated field office and 6 Metal and Nonmetal Mine Safety and Health districts and associated field offices. MSHA also operates the Mine Health and Safety Academy in Beckley, West Virginia—one of the 7 permanent federal academies; the Pittsburgh Safety and Health Technology Center in Bruceton, Pennsylvania; and the Approval and Certification Center in Triadelphia, West Virginia. The MSHA FY 2000 budget is \$228 million and 2,317 Full- Time Equivalents (FTE).

MSHA has the following organization:

- C Office of the Assistant Secretary
- C Coal Mine Safety and Health Administration
- C Metal and Nonmetal Mine Safety and Health Administration
- C Office of Assessments
- C Office of Standards, Regulations and Variances
- C Directorate of Educational Policy and Development
- C Directorate of Technical Support
- C Directorate of Administration and Management
- C Directorate of Program Evaluation and Information Resources

### Mine Safety and Health Administration Organization



### 3. Strategic Goals and the FY 2000 Budget

#### 3.1 Introduction

The MSHA FY 2000 Performance Plan is an integral component of the Department of Labor's Performance Plan. It specifically addresses the Departmental cross-cutting strategic goal of *Quality Workplaces—Foster quality workplaces that are safe, healthy, and fair* and the Departmental outcome goal to *Reduce workplace injuries, illnesses, and fatalities*.

The FY 2000 Budget is \$228 million and 2,317 FTE for mine safety and health. MSHA is committed to reducing mine-related accidents, injuries, and fatalities, as well as continuing to place greater emphasis on health issues. This budget request supports MSHA programs in Coal Mine Safety and Health; Metal and Nonmetal Mine Safety and Health; Assessments; Standards, Regulations and Variances; Educational Policy and Development; Technical Support; and Program Administration. All MSHA program activities work in a complementary fashion to identify and mitigate the many hazards in mine operations. In most cases, specific budget requests address both safety and health performance goals.

MSHA requirements relate directly to national and international economic trends and the response by the mining industry. These include construction and road building activity—particularly TEA 21, precious metal and other metal prices, energy and clean air policies, global competition for mineral products, and mining technologies, processes, and workforce practices.

### 3.2 Major efforts conducted by MSHA

- C *Enforce the provisions of the Mine Act and provide compliance assistance.* MSHA will continue to implement an integrated approach toward the prevention of serious accidents, injuries and occupational illnesses in the mining industry.
  - < Conduct mandated safety inspections and assistance, with special attention on mines experiencing significant methane liberation or a high incidence rate of serious accidents and injuries. Place special inspection emphasis on the types of mines experiencing high levels of injuries and fatalities.
  - < Conduct activities to reduce miners' exposure to recognized hazardous health conditions through increased dust sampling, education, and technological improvements.
  - < Conduct mandated investigations prompted by accidents, by safety and discrimination complaints, and by the identification of mine operators who demonstrate reckless disregard for safety or health standards or refuse to comply with orders issued under the Act.
  - < Conduct fatal accident and serious nonfatal accident investigations.
  - < Conduct activities designed to assist industry and labor in improving safety and health conditions and practices in mines. These activities include assisting mine operators in solving difficult health and safety problems, distributing training materials and safety posters, and conducting seminars and giving talks on mine health and safety in critical areas. Conduct targeted "safety sweeps" to

educate and assist mine workers and operators in ways to improve the safety environment whenever accident trends become apparent.

- < Assess civil penalties for violations of safety and health standards. MSHA will assess civil monetary penalties for all violations of the Mine Act consistently, and in accordance with statutory criteria; assess all penalties in a timely manner, and at a level that will encourage compliance; account for all penalty cases in litigation before the Federal Mine Safety and Health Review Commission; and collect and account for penalties paid. MSHA works to minimize the number of contested assessments through the continued use of district conference officers trained in alternative dispute resolution techniques.

C *Develop and promulgate mandatory safety and health standards.* MSHA develops and promulgates standards to provide reliable, practical protection for the health and safety of all miners. Mandatory standards provide a benchmark for voluntary compliance and a legal basis for enforcement. The Agency initiates the processing of all petitions for site specific modification of safety standards and grants variances when mine operators or representatives of miners show that the application of the standard will result in a diminution of safety or there is an alternative method which is as effective as the standard. The procedure allows compliance flexibility to the mining community for unique conditions in a mine.

C *Provide education and training.* Training plays a critical role in preventing deaths, injuries and illnesses on the job. Only with

effective training can miners recognize possible hazards and know safe procedures to follow.

- < Manage education and training programs and policies. Develop and distribute materials, provide outreach to the mining community, and contribute to targeted safety sweeps to educate and assist miners and operators in ways to improve mine safety.
- < Manage the State Grants program.
- < Approve and evaluate training plans, qualify and certify miners and instructors.
- < Operate the National Mine Health and Safety Academy to provide professional instruction in mine safety and health to MSHA inspectors and the mining community. This includes the design and delivery of training courses, instructional materials, and innovative educational programs to assist in reducing fatalities, injuries, and illnesses in mining.

C *Provide technical support to the Agency and mining industry.*

- < Approve and certify equipment, instruments, materials, explosives, and personal protective apparatus that can be used in mines.
- < Provide specialized scientific and engineering expertise during forensic field and laboratory investigations.
- < Conduct in-mine and laboratory investigations to support MSHA evaluations of safety and health standards compliance, analyses of existing environmental conditions, projections of future technological developments, and the development by MSHA and the mining industry of solutions to compliance



problems.

- C *Provide efficient and effective Program Administration.* MSHA's program administration supports the Agency's mission through the full range of executive policy and direction, administrative management, program evaluation and information technology management, public affairs and information programs, legislative and Congressional liaison activities, and equal opportunity.

### **3.3 Specific budget initiatives for FY 2000**

Specific budget initiatives for FY 2000 address evolving and newly emerging trends and concerns of the Agency. The following describes each initiative and links it to the strategic and performance goals supported.

- C An integrated initiative at \$6.7 million and 29 FTE that targets prevention of accidents and injuries in the metal and nonmetal mining

sector through increased inspection, compliance assistance, education and training, and analytical technical and field investigation. This initiative responds to significant challenges at metal and nonmetal mines such as increased demand and production of aggregates, the large percentage of small mining operations—many without safety and health programs—and, the growth of contractor services.

- C An increase of \$2 million and 7 FTE to expand efforts in the Coal Mine Respirable Dust Program by increasing sampling at underground mines from four times per year to bimonthly. This initiative continues steps taken/proposed in FY 1998/FY 1999 and responds to concern over the effectiveness of the current program and the continued risk to coal miners in contracting pneumoconiosis. It will provide a more accurate benchmark for gauging the effectiveness of operator dust control programs.

## 4. Performance Goals and Indicators

MSHA's FY 2000 program activities and initiatives focus on reducing miners' injuries and exposure to health hazards by applying the Agency's human, financial, and information technology resources in the most effective manner. Completion of mandatory inspections and investigations will continue as a critical part of ascertaining compliance with Federal safety and health standards. Special emphasis and educational outreach initiatives will also be continued and strengthened to focus attention on the root causes of persistent safety and health problems and the implementation of preventive measures.

In FY 2000, MSHA will measure its performance against the goal of reducing miners' injuries and fatalities below the previous 5-year average based on accident and injury data reported by mine operators. The Agency's current reporting and auditing procedures provide reasonable assurance that the data collected are accurate. Externally, the Agency uses this information to report on accident and injury trends in the mining industry. Internally, this information guides inspection work, and provides a substantive basis for and direction to the Agency's overall efforts, particularly rule-making responsibilities.

Measures related to miner health regarding the compliance rates of metal and nonmetal mines and coal mines with the current health standards for noise overexposure and dust/silica overexposure are also well established. Effective use of this information should result in a reduction in miners' exposure to health hazards and, ultimately, a reduction in occupationally-caused illnesses and diseases.

### 4.1 Validation of Performance Measures and Indicators

MSHA has a significant database and collection system that captures most of the information necessary to track performance under the strategic plan.

For performance measures under the strategic goal *Reduce injuries in the Nation's mines—reduce mine industry nonfatal-days-lost incidence rate to below the average number recorded for the previous 5 years* and reduce the number of mine fatalities to below the average number recorded for the previous 5 years: the nonfatal-days-lost incidence rate has been collected for many years and the database is well established. MSHA relies on mine operators and contractors to comply with legal requirements to report accurately and timely injuries and accidents. The degree of compliance may be influenced by the number of audits conducted by MSHA inspectors.

For performance measures under the strategic goal *Reduce miners' overexposure to health hazards*:

*Reduce the percentage of samples out of compliance with the respirable coal mine dust standard.* MSHA's system for determining compliance with the coal respirable dust standard has been in place since the 1970s and procedures are well established to ascertain the accuracy and reliability of the data. Automated devices are used to weigh the inspector dust samples and automatically enter the results into a custom designed program that updates the dust data files daily. A quality control program developed jointly by MSHA and the National

Bureau of Standards assures that the weighing process continues to produce reliable results over time, and computer edit checks assure the accuracy of the database.

While operators are still required to measure coal dust in their mines, this performance measure will be based on MSHA inspector samples due to past concern with operator dust collection procedures. MSHA is working with NIOSH to develop a continuous monitor that will improve the Agency's future ability to measure performance.

*Reduce the percentage of samples in metal and nonmetal mines out of compliance with the silica standard for the highest risk occupations and reduce the percentage of samples in metal and nonmetal mines out of compliance with the noise standard:* Metal and Nonmetal (MNM) inspectors have conducted industry-wide sampling since the 1970s. MNM health policies, sampling procedures, and management information system (MIS) are well-established and reliable. Automated devices are used to weigh inspector dust samples at MSHA's analytical lab which was certified by the American Board of Industrial Hygienists in FY 1998. Computer edits assure the accuracy of MIS data input. Baselines were established in FY 1998 and revised in FY 1999.

*Abatement time for silica overexposure:* This measure is dropped. Because of priority Agency Y2K efforts, MSHA did not establish the link between personal health samples and citations issued.

## 4.2 FY 2000 Performance Goals

This section presents MSHA's FY 2000 performance goals and indicators. For each strategic goal, the section highlights the following:

- C MSHA Strategic Goal—The MSHA Strategic Goal from the MSHA Strategic Plan.
- C Cross Cutting Strategic Goal—The Departmental goal which MSHA's goal supports.
- C Outcome Goal—The Departmental outcome to be achieved relative to the Departmental Strategic Goal.
- C Supporting Budget Activity/Decision Unit Titles—The program activity structure.
- C FY 2000 Performance Goal—The specific targets relative to the MSHA Strategic Goal accomplishment.
- C Source of Data—The measurement that will be used to assess progress towards the Performance Goal accomplishment.
- C Baseline—The baseline year and baseline level against which progress will be evaluated.
- C Comment—Issues related to goal accomplishment, measurement systems, and strategies that provide a context or description of the performance goal or indicator.

Following the listing of performance goals for each Strategic Goal, the Performance Plan provides a summary of the means and strategies that will be used by MSHA in achieving the outcome and performance goals. Means and strategies for both continuing efforts and new initiatives are identified.

### 4.2.1 MSHA Strategic Goal 1—Reduce injuries in the Nation’s mines

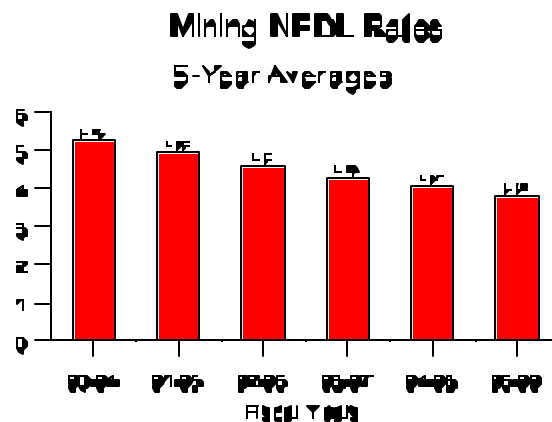
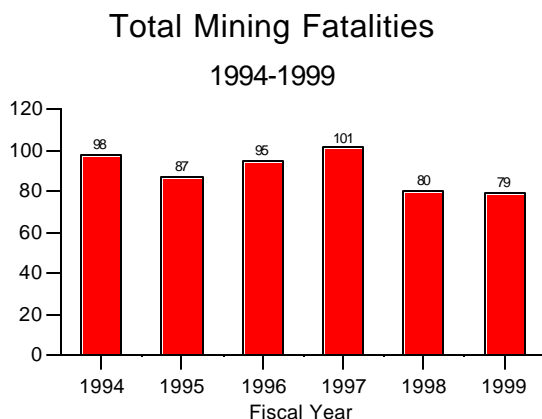
This strategic goal has two performance goals:

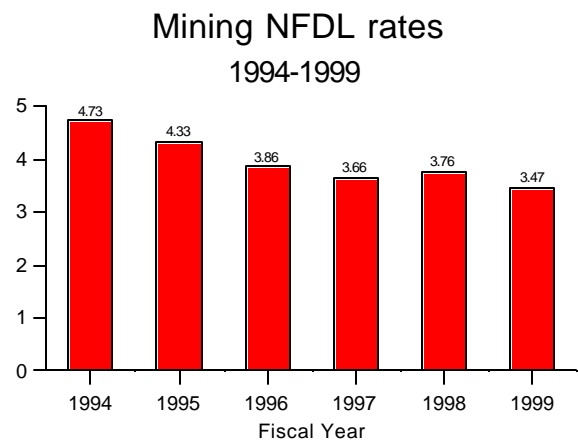
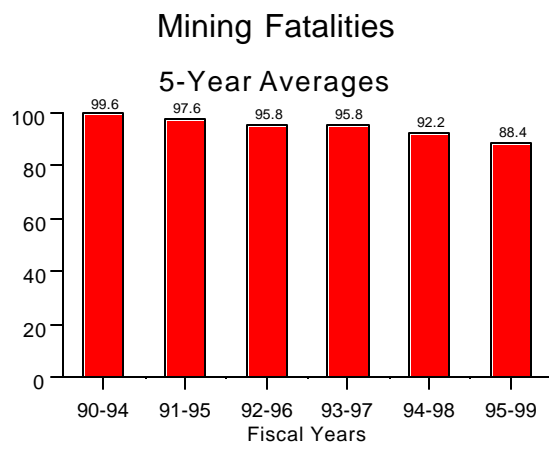
- C Reduce the number of coal mine and metal and nonmetal mine fatalities to below the average number recorded for the previous 5 years.
- C Reduce mine industry injuries (nonfatal-days-lost incidence rate) to below the average number recorded for the previous 5 years.

MSHA has made significant strides in reducing the number of mine fatalities and injuries. Five-year moving average baselines are used to smooth out year-to-year variances and present a more visible trend line. As the following charts show, there has been a steady decline in the 5-year averages for fatalities and injuries. While mining fatalities were at their highest point in 1997, during the FY 1994–1998

baseline period, the 79 fatalities in FY 1999 were the lowest fiscal year figure ever recorded. (However, the 87 CY 1999 fatalities exceeded 80 CY 1998 number.)

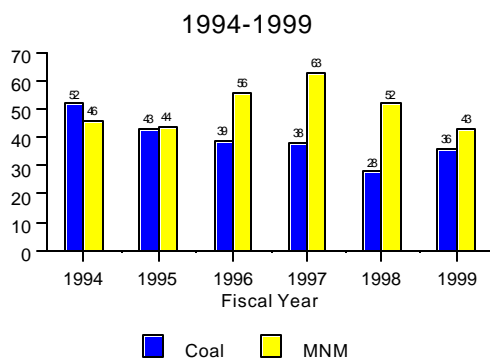
A similar trend can be seen in mining injury rates. The non-fatal-days-lost incidence rates have also declined over this period—from 4.73 in FY 1994 to 3.47 in FY 1999.



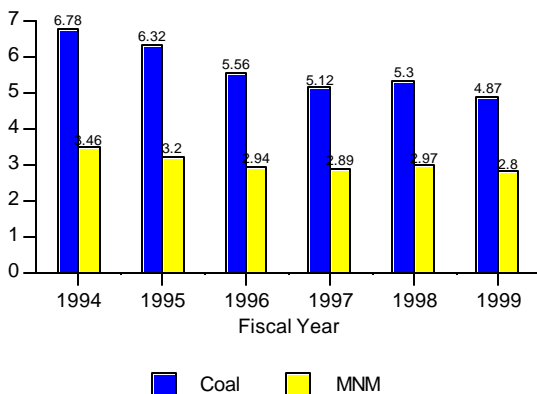


However, MSHA strategies and related budget initiatives become more evident when looking at the trends and factors associated in differences between the coal and metal and nonmetal sectors. As the charts below show, coal fatalities and injuries have shown a decline over the 5-year baseline period whereas metal and nonmetal mining fatalities have been much more variable with injury rates staying relatively flat.

**Coal & MNM Mining Fatalities**



**Coal & MNM NFDL Rates**



MSHA must remain vigilant in its safety programs. The experienced coal mining workforce is aging, to be replaced by younger miners entering an industry in transition and facing

enormous competitive pressures to increase production while containing costs. In the metal and nonmetal sector, especially in the aggregates industry, the current strong economy coupled with the TEA 21, will result in the creation of new (and generally small) companies and contractors and an influx of new inexperienced miners.

## Means and Strategies — Reduce injuries in the Nation's mines

### Sustained efforts in FY 2000

- C Conduct annual inspections required by the Mine Act and inspections of mines experiencing significant methane gas liberation or a high incidence rate of serious accidents and injuries.
- C Conduct other enforcement activities including mandated investigations that are prompted by accidents, by safety and discrimination complaints, and by the identification of mine operators who exhibit reckless disregard for safety or health standards or who refuse to comply with orders issued under the Act.
- C Investigate fatal accidents and serious nonfatal accidents. These investigations provide valuable information which is also used by industry and labor organizations to develop strategies to prevent similar occurrences and to promote awareness in areas of concern.
- C Conduct activities designed to assist industry and labor to improve safety conditions and practices to include assisting mine operators to solve difficult safety problems and directing informational outreach programs to

directing informational outreach programs to focus attention on high incidence accident causes. Conduct targeted “safety sweeps” to educate and assist mine workers and operators in ways to improve the safety environment as a certain trend becomes evident.

- C Provide onsite individual mine safety training program evaluations. Distribute safety training materials. Advise and provide “best practices” information tailored to individual mining operations. Incorporate those “best practices” into rulemaking if appropriate.
- C Expand existing outreach efforts to identify and to communicate with historically non-participating audiences. Four discrete target audiences where intervention could have a significant impact are: new operators, new miners, non-participatory operators, and contractors. Non-participatory operators are those who do not routinely interact with MSHA, trade associations, or state agencies in educational activities on safety and health. Small non-participatory operators are less likely to have a formal safety and health program or have direct access to safety and health professionals.
- C Conduct smoking hazard initiatives through direct contact with miners, training, and other channels. (Smoking in underground mines and in “no smoking areas” presents an ignition source for gas explosions.)
- C Sponsor, conduct, and/or participate in mine rescue contests.
- C Award grant funds to States to assist in their mine safety and health-related activities as

provided through the Mine Act.

- C Ensure that all miners are provided necessary training (under the training rule promulgated in FY 1999) at mines where MSHA has been prohibited from enforcing training requirements.
- C Provide training for MSHA inspectors to maintain a high level of professionalism and proficiency. This training includes awareness of state-of-the-art mining methods and working knowledge of new mining equipment. This training will enhance MSHA’s ability to effectively enforce the mining laws and advise mines in ways to improve health and safety conditions.
- C Provide technical training to members of the mining community in new methodologies and practices that will maintain and improve health and safety working conditions.
- C Improve education and training through verification of student ability to perform training objectives and greater use of new methods of providing training.
- C Improve the rulemaking process by: expanding early public participation to gather the best available evidence, looking closely at the interrelated impact of regulations from multiple agencies, increasing the number of alternatives considered during the review and development of regulations, and acquiring the expertise necessary to address complex issues. Continue to review existing regulations that are outdated, obsolete, inadequate, redundant, or otherwise need revision.
- C Expand the user-friendly, public database that

contains information needed by the mining industry and other interest groups, such as

- C Provide timely approval/certification of mining plans and equipment.
- C Improve the application of special assessments overall and for those violations determined to have unique and aggravating circumstances, such as repeat health standard violations, smoking article violations, untrained miner violations, etc.
- C Improve the industry's understanding of the purpose of and procedures used in the civil penalty process through seminars, meetings, and informational presentations.
- C Increase effective collection of civil penalties.
- C Enhance international cooperation in order to promote injury and illness prevention through international mine safety and health standards, to articulate common concerns in dealings with industry throughout the world, and to pool expertise and the exchange of technical information.

#### **Significant New or Enhanced Efforts in FY 2000**

Increase accident prevention efforts in metal and nonmetal mines to attack the current pattern of

statistical data on fatalities, accidents, injuries, and health sampling.

accidents and to meet the impact of TEA 21.

- C Increase and improve accident prevention efforts by concentrating on problem areas.
- C Develop an accident prevention program directed specifically at contractors working on mine property.
- C Improve data collection on the occurrence of serious but nonfatal accidents.
- C Increase compliance assistance to operators and contractors through seminars and workshops.
- C Provide targeted non-enforcement inspections that help achieve compliance without fines.
- C Provide nationally organized awareness campaigns.
- C Increase and improve technical support capabilities.
- C Direct basic safety education and training opportunities to those miners most in need including those employed by small operators and contractors.



**MSHA Strategic Goal 1—Reduce injuries in the Nation’s mines**

<b>1.1</b>	<b>Cross-Cutting Strategic Goal:</b> Quality Workplaces—Foster quality workplaces that are safe, healthy, and fair
	<b>DOL Outcome Goal:</b> Reduce workplace injuries, illnesses, and fatalities.
	<b>Supporting Budget Activity/Decision Unit Titles and P&amp;F Schedules:</b> Coal Mine Safety and Health (16-1200-01-554.01) Metal and Nonmetal Mine Safety and Health (16-1200-01-554.02) Standards Development (16-1200-01-554.03) Assessments (16-1200-01-554.04) Educational Policy and Development (16-1200-01-554.05) Technical Support (16-1200-01-554.06) Program Administration (16-1200-01-554.07)
	<b>MSHA FY 2000 Performance Goal:</b> Reduce the number of coal mine and metal and nonmetal mine fatalities to below the average number recorded for the previous 5 years.
	<b>Indicator:</b> Coal and metal/nonmetal mine fatalities.
	<b>Source of Data:</b> Mine Accident, Injury, Illness, Employment, and Coal Production System (30 CFR Part 50)
	<b>Baseline:</b> 92 average for FY 1994-1998; 88 average for FY 1995-1999. The 5-year moving average will be updated each year.
	<b>Comment:</b> 5- year moving average is used to reduce irregular fluctuations in order to highlight trends in performance measure.

1.2	<b>Cross-Cutting Strategic Goal:</b> Quality Workplaces—Foster quality workplaces that are safe, healthy, and fair
	<b>DOL Outcome Goal:</b> Reduce workplace injuries, illnesses, and fatalities.
	<b>Supporting Budget Activity/Decision Unit Titles and P&amp;F Schedules:</b> Coal Mine Safety and Health (16-1200-01-554.01) Metal and Nonmetal Mine Safety and Health (16-1200-01-554.02) Standards Development (16-1200-01-554.03) Assessments (16-1200-01-554.04) Educational Policy and Development (16-1200-01-554.05) Technical Support (16-1200-01-554.06) Program Administration (16-1200-01-554.07)
	<b>MSHA FY 2000 Performance Goal:</b> Reduce mine industry injuries (nonfatal-days-lost incidence rate) to below the average number recorded for the previous 5 years.
	<b>Indicator:</b> Coal and metal/nonmetal mine industry nonfatal-days-lost incidence rate.
	<b>Source of Data</b> Mine Accident, Injury, Illness, Employment, and Coal Production System (30 CFR Part 50)
	<b>Baseline:</b> 4.07 average incident rate for FY 1994-1998; 3.82 average incident rate for FY 1995-1999. The 5-year moving average will be updated each year.
	<b>Comment:</b> 5-year moving average is used to reduce irregular fluctuations in order to highlight trends in performance measure.

#### 4.2.2 MSHA Strategic Goal 2—Reduce miners' overexposure to health hazards

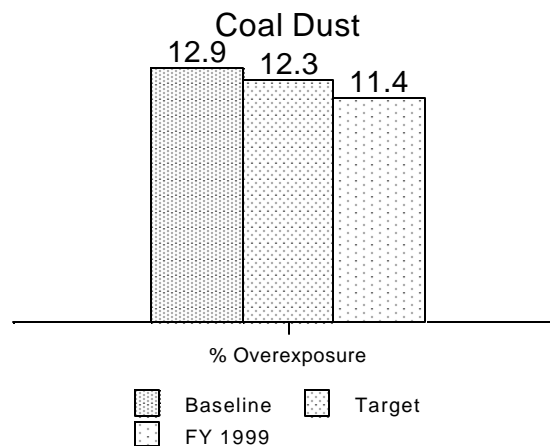
This strategic goal has 3 performance goals:

- C Reduce the percentage of samples out of compliance with the respirable coal mine dust standard.
- C Reduce the percentage of samples in metal and nonmetal mines out of compliance with the silica standard for the highest risk occupations.
- C Reduce the percentage of samples in metal and nonmetal mines out of compliance with the noise standard in the highest risk occupations.

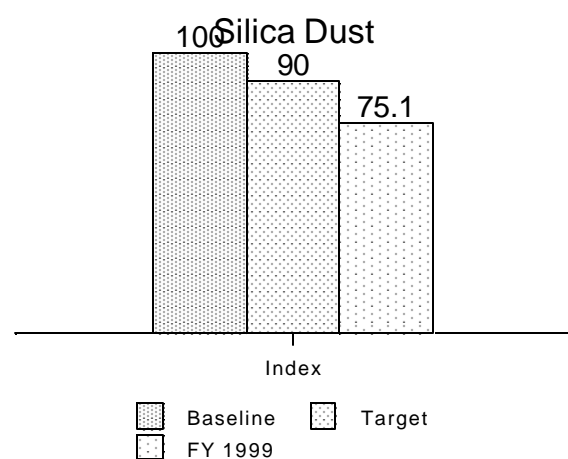
Lung diseases among miners caused by respirable dust—coal dust and crystalline silica in particular—remain pervasive, though preventable, hazards. Elimination of black lung disease and silicosis is a continuing Agency priority. MSHA is working toward a diesel particulate matter standard because it too is a recognized occupational hazard.

MSHA is taking aggressive action to tackle the dust problem. In the coal mine sector, MSHA has developed a five-point plan: detect dust exposure, monitor exposure, conduct sampling, develop a more effective compliance system, and determine the current extent of the problem. As part of this plan are actions including MSHA conducting compliance sampling (as opposed to operator “self-policing”), institution of single-shift sampling, increased identification of mines with respirable dust control problems, providing operator dust samples on the Internet, pursuing wearable “black boxes” to give instant exposure

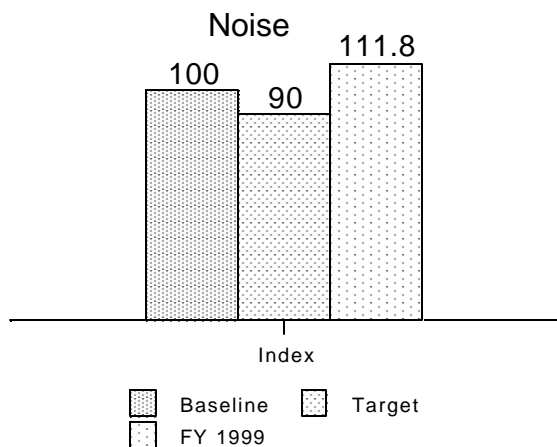
readouts, and providing free x-ray screening to a selection of coal miners.



For dust and noise in metal and nonmetal mines, MSHA issued a program policy that calls for targeting mines where a reasonable likelihood of overexposures exist. These include a history of overexposure, an operation that produces ground silica and other contaminants that require proper work practices and controls, and a visual observation that indicates and absence of engineering controls and conditions such as visible suspended dust.



As part of this effort, performance measure baselines were developed that identify the high-risk occupations and an algorithm for calculating GPRA performance comparisons. The algorithm takes into account differences in the mix of occupations currently sampled as compared to the baseline data set.



## Means and Strategies—Reduce miners' overexposures to health hazards

### Sustained efforts in FY 2000

- C Conduct annual inspections required by the Mine Act and other enforcement activities including mandated investigations that are prompted by the identification of mine operators who exhibit reckless disregard for health standards or who refuse to comply with orders issued under the Act.
- C Conduct activities designed to assist industry and labor in improving and health conditions and practices to include assisting mine operators in solving difficult health problems and directing informational outreach programs to occupations with a high incidence of overexposures to airborne contaminants and

physical agents, with particular attention to dust, noise, and diesel particulates.

- C Revise existing standards and policies for respirable coal mine dust and crystalline silica and propose new rules on limiting exposure to diesel particulates in underground mines.
- C Continue to implement the recommendations of the Advisory Committee on the Elimination of Pneumoconiosis Among Coal Mine Workers by sampling respirable dust with greater frequency (each underground mine four times a year and each surface mine twice a year), increasing monitoring inspections at mines that continue to have difficulty complying with dust standards, focusing on the maintenance and operation of required dust controls and the adequacy of the requirement for operators to collect representative dust samples, and offering educational and training assistance on effective dust controls for those who ask for it.
- C Increase targeted inspection activities and increase sampling presence in metal and nonmetal mines with excessive dust and noise levels.
- C Decrease time between evaluations of mine ventilation systems.
- C Refine baseline data on dust, crystalline silica and noise exposure.
- C Award grant funds to States to assist in their mine safety and health-related activities as provided through the Mine Act.
- C Provide training, training materials, and hazard awareness programs to the mining industry

concerning mining and dust health hazards associated with mining operations.

- C Ensure that all miners are provided necessary training (under the training rule developed in FY 1999) that will apply at mines where MSHA had been prohibited from enforcing existing training requirements.
- C Train MSHA inspectors in the current methodologies for reducing hazardous health conditions in the mining environment.
- C Improve education and training through verification of student ability to perform training objectives and greater use of new methods of providing training.
- C Evaluate on-site individual mine health training programs. Advise and provide tailored “best practices” information to reduce health hazards. Incorporate those best practices into rulemaking if appropriate.
- C Improve the rulemaking process by: expanding early public participation to gather the best available evidence, looking closely at the interrelated impact of regulations from multiple agencies, increasing the number of alternatives considered during the review and development of regulations, and acquiring the expertise necessary to address complex issues. Continue to review existing regulations that are outdated, obsolete, inadequate, redundant, or otherwise need revision.
- C Improve the application of special assessments overall and for those violations determined to have unique and aggravating circumstances, such as repeat health standard violations, smoking article violations, untrained

miner violations, etc.

- C Increase effective collection of civil penalties.
- C Provide timely approval/certification of mining plans and equipment.
- C Pursue development of technological advances such as real-time dust monitors.
- C Enhance international cooperation in order to promote injury and illness prevention through international mine safety and health standards, to articulate common concerns in dealings with industry throughout the world, and to pool expertise and the exchange of technical information.

#### **Significant New or Enhanced Efforts in FY 2000**

*Coal Mine Respirable Dust Program.* A major component of the Federal program to protect miners from the hazards associated with overexposure to respirable coal mine dust and silica is the requirement that mine operators sample, on a bimonthly basis, occupations that have a high risk of exposure. Concern over the effectiveness of the existing program has been raised by the National Institute for Occupational Safety and Health and a federally-appointed advisory committee comprised of members from industry, labor, academia, and government. To address this concern, MSHA has increased Federal monitoring of exposure limits and, in FY 1999, targeted sampling inspections at problem mines or those mines that continue to have difficulty maintaining consistent compliance. To further increase the level of health protection of miners in FY 2000, MSHA is proposing to expand efforts by increasing sampling at

underground mines from four times per year to bimonthly.

## MSHA Strategic Goal 2—Reduce miners' exposure to health hazards

2.1	<b>Cross-Cutting Strategic Goal:</b> Quality Workplaces—Foster quality workplaces that are safe, healthy, and fair.
	<b>DOL Outcome Goal:</b> Reduce workplace injuries, illnesses, and fatalities.
	<b>Supporting Budget Activity/Decision Unit Titles and P&amp;F Schedules:</b> Coal Mine Safety and Health (16-1200-01-554.01) Metal and Nonmetal Mine Safety and Health (16-1200-01-554.02) Standards Development (16-1200-01-554.03) Assessments (16-1200-01-554.04) Educational Policy and Development (16-1200-01-554.05) Technical Support (16-1200-01-554.06) Program Administration (16-1200-01-554.07)
	<b>MSHA FY 2000 Performance Goal:</b> Reduce by 5% the percentage of samples out of compliance with the respirable coal mine dust standard in FY 2000.
	<b>Indicator:</b> Compliance with the coal mine dust standard.
	<b>Source of Data:</b> Coal Mine Safety and Health Management Information System.
	<b>Baseline:</b> Baseline is the FY 1998 number of citable samples divided by total samples—489 not in compliance out of 3,773 for a 12.961% overexposure percentage.
	<b>Comment:</b> Respirable dust is one of the three major health hazards to miners. Prevention of black lung disease is a priority health initiative.

2.2	<b>Cross-Cutting Strategic Goal:</b> Quality Workplaces—Foster quality workplaces that are safe, healthy, and fair
	<b>DOL Outcome Goal:</b> Reduce workplace injuries, illnesses, and fatalities.
	<b>Supporting Budget Activity/Decision Unit Titles and P&amp;F Schedules:</b> Coal Mine Safety and Health (16-1200-01-554.01) Metal and Nonmetal Mine Safety and Health (16-1200-01-554.02) Standards Development (16-1200-01-554.03) Assessments (16-1200-01-554.04) Educational Policy and Development (16-1200-01-554.05) Technical Support (16-1200-01-554.06) Program Administration (16-1200-01-554.07)
	<b>MSHA FY 2000 Performance Goal:</b> Reduce by 5% the percentage of samples in metal and nonmetal mines out of compliance with the silica standard for the highest risk occupations in FY 2000.
	<b>Indicator:</b> Compliance with the permissible level for silica exposure in metal/nonmetal mines.
	<b>Source of Data:</b> Metal and Nonmetal Mine Safety and Health Management Information System.
	<b>Baseline:</b> Silica dust baseline: 1997-1998 baseline data given GPRA index of 100-based on weighted number of citable samples out of samples taken for the high-risk occupations. MSHA uses an index measurement to provide an accurate dust measure that accounts for changes in the types of mines, commodities, and jobs sampled to prevent bias across the occupational category sample distribution.
	<b>Comment:</b> Respirable silica dust is one of the three major health hazards to miners and is prevalent in metal and nonmetal mining operations. Prevention of silicosis is a priority health initiative.



2.3	<b>Cross-Cutting Strategic Goal:</b> Quality Workplaces—Foster quality workplaces that are safe, healthy, and fair
	<b>DOL Outcome Goal:</b> Reduce workplace injuries, illnesses, and fatalities.
	<b>Supporting Budget Activity/Decision Unit Titles and P&amp;F Schedules:</b> Coal Mine Safety and Health (16-1200-01-554.01) Metal and Nonmetal Mine Safety and Health (16-1200-01-554.02) Standards Development (16-1200-01-554.03) Assessments (16-1200-01-554.04) Educational Policy and Development (16-1200-01-554.05) Technical Support (16-1200-01-554.06) Program Administration (16-1200-01-554.07)
	<b>MSHA FY 2000 Performance Goal:</b> Reduce by 5% the percentage of samples in metal and nonmetal mines out of compliance with the noise standard in the highest risk occupations in FY 2000.
	<b>Indicator:</b> Compliance with the permissible level for noise in metal/nonmetal mines.
	<b>Source of Data:</b> Metal and Nonmetal Mine Safety and Health Management Information System.
	<b>Baseline:</b> Noise baseline: 1997-1998 baseline data given GPRA index of 100-based on weighted number of citable samples out of samples taken for the high-risk occupations. MSHA uses an index measurement to provide an accurate dust measure that accounts for changes in the types of mines, commodities, and jobs sampled to prevent bias across the occupational category sample distribution.
	<b>Comment:</b> Noise is one of the three major health hazards to mine workers. The measure is restricted to metal and nonmetal mines because regulations in the coal mining industry require miners to wear hearing protection.

### 4.3 Key External Factors That May Affect Performance

The mining environment, whether underground or surface, is complex and ever-changing. Geologic conditions are difficult to assess and can conceal unpredictable dangers. Hazardous conditions eliminated one day can reoccur the next, or where one hazard is corrected another may appear. This requires constant vigilance by MSHA in its education and training outreach to promote hazard awareness and hazard targeting activities.

Business decisions or product demand can adversely impact health and safety in the workplace. TEA 21 earmarked over \$200 billion over 6 years for transportation projects—highway, bridge, and mass transit construction and repair. A healthy economy and low interest rates will likely continue to fuel other construction activity. The aggregates industry is expected to increase production to meet demand, resulting in expanded mining operations, additional work shifts, longer workdays, and an influx of both inexperienced miners and inexperienced owner-operators. Low unemployment rates may draw new miners from

workforces that have less experience and training. To meet demand many operators will use contractors, many of whom are small in size and have limited resources for their health and safety programs.

The deregulation of electricity providers is leading to competitive pressures in the coal industry. Electric utilities, which once sought a stable supply of coal at a reasonable rate, must now find low-cost suppliers to remain competitive. The resulting pressure on the mining industry can lead to “cutting corners” in terms of worker safety and health to reduce costs.

Technology advances in mining equipment may also affect operations, productivity, and worker safety and health.

MSHA must remain flexible so that its plans are able to reflect needed increases in inspections at mines experiencing increased production to ensure compliance with safety and health standards, including new miner training requirements and hazard awareness.

## 5. Cross-Cutting Issues

MSHA maintains a number of automated data systems which capture health and safety statistics: mine employment and coal production data, inspection and investigation information, civil penalty assessment data, mine ownership information, and mining equipment approval information. Data from these systems is provided to companies, organizations, and Federal and State agencies. The Bureau of Labor Statistics, National Institute for Occupational Safety and Health (NIOSH), Office of Surface Mining, National Geological Survey, and the Department of Energy are some of the federal agencies with whom MSHA shares data.

The Mine Act calls for coordination on research between MSHA and NIOSH. MSHA provides NIOSH with its research needs. There is a MSHA–NIOSH Memorandum of Understanding for the joint approval of respirators. NIOSH evaluates respirator performance while MSHA evaluates its mine-worthiness. Because NIOSH has facilities for explosives research, MSHA evaluates NIOSH test results as part of MSHA's approval process. MSHA and NIOSH also coordinate on educational activities and MSHA takes advantage of NIOSH medical expertise in enforcement and standards development.

In 1996, the Secretary of Labor appointed the Advisory Committee on the Elimination of Pneumoconiosis Among Coal Mine Workers. The committee was comprised of mine operators, labor representatives and members of the medical and academic community. It made 20 major recommendations and outlined more than 100 action steps. This initiative has evolved into the special emphasis Campaign to End Black Lung. Due to concerns raised by NIOSH and the

advisory committee over the effectiveness of the existing respirable dust sampling program, MSHA is taking steps to increase Federal monitoring of exposure limits.

MSHA is working with NIOSH on the development of a machine-mounted continuous respirable dust monitor which is being tested in mines. MSHA also is seeking to develop, through NIOSH, a personal continuous monitoring device that can be worn by individual miners. This will allow users to see "real time" readouts of dust concentrations and allow miners and mine operators to take immediate corrective action.

MSHA interacts with OSHA on several fronts. MSHA provides expertise on evaluating laboratories under OSHA's certification program of National Recognized Testing Laboratories. MSHA provides technical support assistance to OSHA in accident investigations where MSHA expertise can best be put to use. OSHA performs asbestos analysis for MSHA. MSHA and OSHA coordinate on equipment testing, standards, and jurisdictional referrals.

MSHA supported and participated in the Department of Labor's National Campaign to Eliminate Silicosis—launched jointly with the American Lung Association, NIOSH, and OSHA. As a follow-up, MSHA developed informational materials and sponsored silicosis awareness and prevention seminars throughout the country.

MSHA consults with other Agencies such as OSHA, NIOSH, and the Environmental Protection Agency during the rulemaking process. MSHA seeks peer review of regulations

by these Agencies, as appropriate, and performs reciprocal reviews as requested.

MSHA evaluates and approves mine waste dam plans at coal mines. These evaluations are required by and used by many state offices of reclamation and by the Office of Surface Mining. MSHA is a contributor to the National Inventory of Dams and a member of the Interagency Committee on Dam Safety which is headed by the Federal Emergency Management Agency.

MSHA provides seismic location equipment to the Federal Emergency Management Agency for urban search and rescue operations.

MSHA and the Bureau of Alcohol, Tobacco, and Firearms have a Memorandum of Understanding regarding inspections of explosives magazines at mines. MSHA inspectors not only conduct MSHA inspections, but also conduct Bureau of Alcohol, Tobacco, and Firearms inspections according to that Agency's regulations requiring safe, theft-resistant storage of explosives.

Other agencies MSHA coordinates with on enforcement issues are the Environmental Protection Agency, Food and Drug Administration, and Nuclear Regulatory Commission (Memorandum of Understanding on uranium milling).

MSHA's National Mine Health and Safety Academy provides training, such as fire-fighting and accident prevention, to other federal agencies. Other agencies, such as OSHA and the Naval Air Warfare Systems Center for Training and Development, have reciprocated by providing training for MSHA's specialists.

MSHA refers certain delinquent civil penalties owed to Treasury or Justice for servicing as required by the Debt Collection Improvement Act of 1996.

MSHA refers contested civil penalty cases to the Federal Mine Safety and Health Review Commission as required by the Mine Act.

MSHA, in coordination with the Department's Office of the Solicitor, works closely with the Department of Justice through U.S. Attorney offices around the country to prosecute willful violations of mine safety and health laws.

In FY 1998 MSHA, in partnership with Federal, State, and private sector organizations, initiated a National Active and Abandoned Mine Hazard Awareness Campaign to alert children, parents, and outdoor enthusiasts to the dangers posed by these sites. The campaign kick-off, conducted May 16-31, 1999, was recognized by the participants as a much-needed ongoing activity.

## 6. Strategic Management Process and Management Issues

*MSHA Strategic and Performance Plans.* MSHA has established a framework that links program initiatives and budget requirements to achievement of strategic goals. Development of baselines for performance measurement has given greater focus to annual operating objectives. MSHA produces a quarterly performance report to meet its internal Agency needs for assessing GPRA goal attainment and to meet the requirement for performance reporting to the Department of Labor and the Annual Performance Report.

*Information Resources.* MSHA plans to continue its efforts to consolidate its various information systems on a common platform, further facilitate electronic filing of public use forms, extend electronic access to e-mail, Internet, and Agency LAN applications to all employees in order to meet Agency and Departmental goals, and implement the Departmental information technology capital investment process.

*Government Performance and Results Act (GPRA).* MSHA is preparing to enhance its ability to develop and implement the cost accounting systems that are a necessary component of measuring and reporting program effectiveness under GPRA.

*The Assessments Database Management System.* MSHA's Assessments Database Management System for tracking civil penalties is currently not in compliance with the Federal Management Improvement Act as identified in a 1996 audit and noted in the Office of the Inspector General's audit report of the

Department's FY 1997 financial statements. In conjunction with the Office of the Chief Financial Officer, MSHA established a remediation plan to correct deficiencies, and has completed the first two major milestones. MSHA will use existing in-house resources to complete the project—development and implementation of computer programs.

### *Human Resources.*

MSHA has made a firm commitment to achieve greater diversity throughout its work force as documented in its Diversity Action Plan. The Agency will continue to work toward overcoming under-representation of minorities and women which is hindered by the low representation of these groups in the private sector mining industry from which MSHA draws its inspectors. The Agency is working to establish pipelines with universities and colleges to recruit entry-level employees and will use this opportunity to attract more minorities and women as well as an aggressive outreach effort in other recruitment efforts.

To meet current and future needs, additional inspectors are being hired to inspect metal and nonmetal mines.

MSHA performance objectives also are tied to executive, manager, and supervisor performance standards. This link brings greater visibility and accountability to MSHA's program activity leaders.



## **Appendix A: List of Acronyms**

CFR	Code of Federal Regulations
FTE	Full Time Equivalent
FY	Fiscal Year
GPRA	Government Performance and Results Act
MIS	Management Information System
MNM	Metal and Nonmetal
MSHA	Mine Safety and Health Administration
NIOSH	National Institute for Occupational Safety and Health
OSHA	Occupational Safety and Health Administration
TEA 21	Transportation Equity Act for the 21 <sup>st</sup> Century

## **Appendix B: Relationship of MSHA Program Activities to Strategic Goals**

Strategic Goal: Reduce injuries in the Nation's mines

- C Coal Mine Safety and Health
- C Metal and Nonmetal Mine Safety and Health
- C Assessments
- C Standards, Regulations, and Variances
- C Educational Policy and Development
- C Technical Support
- C Program Administration

Strategic Goal: Reduce miners' overexposure to health hazards

- C Coal Mine Safety and Health
- C Metal and Nonmetal Mine Safety and Health
- C Assessments
- C Standards, Regulations, and Variances
- C Educational Policy and Development
- C Technical Support
- C Program Administration